The Miami Conservancy District
Water Conservation Subdistrict

MEMORANDUM REPORT

Hobart Brothers Manufacturing Company
Westbrook Plant, Troy, Ohio

July 26, 1971

Submitted By:
Hugh D. Hildebrant, Technical Representative

INTRODUCTION

Mr. Don Karnes, Manager of Facility Engineering, met with the District Technical Representative on June 28, 1971. Because of other committments, the meeting was short, and it was not possible to view the treatment facilities or inspect the outfall. However, both items will be covered in the future. If work proceeds according to schedule, all Hobart industrial effluents will be diverted to the Troy sanitary system by fall of this year (1971).

PLANT OPERATION

Industrial effluents at the Westbrook Plant are primarily rinse waters. Partial recirculation of rinsing fluid is effected, but the majority is single pass water. The rinse waters pick up pickling acids used to brighten various types of welding (electric-arc) wires. Prior to 1971, large quantities of acids were in use. Presently, a new "bend and stretch" technique is used to flake away 98 percent of wire scale. The remaining scale is dissolved with acid in relatively small quantity. Adjustment of the pickling rinse is made with $CaCO_3$ to a nominal pH8.5.

Lesser amounts of industrial wastewater come from a plating facility. A strong copper component is removed with dry ammonia gas treatment. Three settling tanks are used. Trace chromate and ammonia are present in the effluent.

All water wasted to the Miami River is from well sources. Three outfall pipes are used. Two carry only adjusted rinse water. The third is from the plating facility. 35-40,000 GPD is the estimated total outfall volume.

Settled solids (scale, copper sludge) are removed to the Miami County incinerator or to the sanitary landfill. Because of the use of organic drawing compounds in the plant (vegetable oil compounds for the most part), some of the solids are partially combustible. No other proprietaries appear to be problematical. No other toxicants are known.

At present, Hobart is working closely with Mr. Mel Eifert of Systems Technology, Dayton, to facilitate the improvement of water quality. The Hobart employee responsible for treatment facility operation, Norman Dane, is a chemist and well-versed in his field.

A copy of the initial survey form is included for reference.

SUMMARY

Hobart will cease to be a discharge permit holder in about four months if work continues at the present pace. All other buildings of Hobart Brothers are now connected to City sanitary lines.

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INITIAL PERMIT SURVEY FORM

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Date Initial Visit: 28 June, 1971 Date(s) Subsequent Visit(s): _____

Name Permit Holder: Hobart Brothers Manufacturing Company, Westbrook Plant, Troy, Ohio

State Permit Number: _____ Telephone: 339-6011 Primary Product: welding rods and equipment

Address: Hobart Bros., Westbrook Plant Troy, Ohio 45373
No. Street City Twp. County

Name, Title Primary Contact(s): Don Karnes, Manager of Facilities Engineering

Process Water: City: _____ Well: 35-40,000 gallons/day River: _____ MGD

Major Water Supplier: River effluents all well water Metered: Yes _____ No _____

Principal Water Use: Rinse water, treated industrial eff Reuse: Yes X No __; Open __ Closed X

Treatment: NH_3 for Cu and pH adjust to 8.5, settling Special Equipment: gaseous NH_3, three settling tanks

Estimated Water Use/Day: _____ MGD Estimated Effluent/Day: 35-40,000 gallons/day to River MGD

Outside Consultant: Firm Systems Technology, Mel Eifert Company Laboratory: Yes __ No X

Regular Effluent Testing Program: Yes ___ No X Describe: _____

Treatment Plant Operator: Norman Dane, Chemist License: _____ Telephone: _____

Outfall Location(s): Three (3) Only one NH_3 treated. Other two (2) rinse and recirculated. pH control. River Mile 106.0 Lat. & Long. ____

Proprietary Compounds Used: none pertinent

Known Toxicants or Pollutants in Effluent Stream: none

Batch Dumping: Yes ___ No X Schedule: _____

Physical and Chemical Characteristics of Effluents: neutralized $CaCO_3$, ammonia, trace chromate

~~Hobart estimates that all effluents will be released to Troy Sanitary system by Fall of 1971. At that time a permit will no longer be required.~~ Date Time

Gaseous Wastes: _____ Fuel _____ Scrubber Yes __ No __

Non-aqueous Liquid Industrial Wastes, GPD NONE

Solvents _____ Bases _____
Oils _____ Resins _____
Acids _____ Paints _____

Present Disposal Techniques: _____

Solid Waste Handling: settled solids to Miami County Incinerator and sanitary fill. Some drawing compounds residuals ~~are combustible.~~

Signed: Hugh J. Hollcraft

Date: 6/25/71